Essays in Education

Volume 18 Article 6

Fall 9-1-2006

The Use of Case Studies as an Integrating Approach in Professional Military Education: A Pilot Study

Jack D. Kem
US Army Command and General Staff College

The Use of Case Studies as an Integrating Approach in Professional Military Education: A Pilot Study

Jack D. Kem
US Army Command and General Staff College

Abstract

The use of case studies as an approach to integrate and synthesize learning objectives is a new approach at the United States Army Command and General Staff College (CGSC). The case study methodology is in wide use at various professional schools, particularly at business schools. In an effort to consider different appropriate approaches to professional graduate education at CGSC, a pilot for the case study methodology was initiated during one of the core courses taught by the CGSC faculty. There were four objectives for the pilot study: to reinforce learning objectives for the preceding blocks of instruction; to develop an awareness of a variety of current issues by studying the content of the case studies; to reinforce the problem-solving model that is the underlying thread of the CGSC curriculum (how to think); and to develop competence in the faculty for presenting cases as an alternative method of instruction. The case study pilot was not intended to represent the only way that case studies can be used, but rather as one way to quickly incorporate case studies in the curriculum. The faculty and students who conducted the pilot found this methodology enhanced learning and was an effective tool for curriculum design and delivery.

Introduction to the Study

The use of case studies as an approach to integrate and synthesize learning objectives is a new approach at the United States Army Command and General Staff College (CGSC). The case study methodology is in wide use at various professional schools, particularly at business schools. In an effort to consider different appropriate approaches to professional graduate education at CGSC, a pilot for the case study methodology was initiated during one of the core courses taught by the CGSC faculty. The pilot was conducted at Fort Belvoir, Virginia, during the four-month long Intermediate Level Education (ILE) Common Core Course taught to 39 students by a teaching team of ten faculty members from CGSC at Fort Leavenworth, Kansas.

Three different pilot case studies were conducted during the ILE Common Core Course at Fort Belvoir, Virginia. The case studies were intended to serve as integrating lessons for major blocks of the instruction – serving to reinforce and integrate the learning objectives of the major blocks of instruction. The methodology chosen was not intended to supplant instruction, but rather to reinforce the major blocks of instruction. As such, the case study pilot was not intended to represent the only way that case studies could be used in ILE, but rather to present a way that case studies could be quickly included in the curriculum. The purpose of this paper is to outline the case study methodology and the rationale for the method chosen at Fort Belvoir. In order to adequately discuss the conduct of the case studies, it is first necessary to outline in detail the student body and the curriculum design for the ILE Common Core Course.

Intermediate Learning Education (ILE): The Student Body and Faculty

The Command and General Staff College student body consists of four different cohorts of students, taught in a variety of learning environments. The first, and probably best known environment, is taught in residence at Fort Leavenworth Kansas. Students at Fort Leavenworth attend a ten-month long course that consists of two major courses: the Intermediate Level Education (ILE) Common Core Course and the Advanced Operations Warfighting Course (AOWC). These courses are taught by resident faculty and the course is accredited as graduate level education. The student body (between 800-1200 students a year) consists of field grade officers from the U.S. Army, the sister services (Air Force, Navy, and Marines), International Military Officers, and a handful of middle grade civilian students from the Federal Government (DIA, etc.). All of the Army officers who attend this course are "Operations Career Field" officers – generally officers who are in the "warfighting business" of the Army.

The second cohort of students that attend CGSC are at what was initially known as the "course locations," now known as "satellite campuses." These students (which will eventually number around 750-800 a year) attend just the first part of the CGSC course (the ILE Common Core Course) at the satellite campuses at Fort Belvoir, VA, Fort Lee, VA, and Fort Gordon, GA. These students are taught by resident faculty at the three locations. The students who attend ILE at the satellite campuses are the "Non-Operations Career Field" officers who serve as Foreign Area Officers, Comptrollers, Medical Fields, and the like. The ILE Common Core Course that they attend at the satellite campuses is the same course – and the same standards – as the ILE Common Core Course taught at Fort Leavenworth. Rather than attending the Advanced Operations Warfighting Course for the second part of their professional military education, these officers attend a second phase based on their specialty for career field certification. The students at the Satellite Campuses are all Army officers.

The third, and largest, cohort of officers that attend the ILE Common Core Course are reserve component officers who attend through the Non-Resident Studies (NRS) Course. These officers attend the ILE Common Core Course through a combination of correspondence and web-enabled distance learning. As many as 5,000 students are enrolled in the NRS ILE course at a time.

The fourth cohort of officers that attend the ILE Common Core Course also consist of reserve component officers, who attend the course as part of monthly "drills" through the reserve component Total Army School System (TASS) schools. The instructors for these courses are reserve component instructors assigned to TASS battalions and brigades, who teach the ILE Common Course as their assigned duties. The TASS battalions teach the course one weekend a month, supplemented by a two week "drill" in the summer.

All of the faculty members of the four different cohorts of ILE are certified as instructors through the Faculty Development Program (FDP) at Fort Leavenworth, Kansas. Faculty Development consists of four different phases: FDP1, the entry level instructor certification course; FDP2, curriculum content certification; FDP3, the course author's course; and FDP4, continuing faculty professional development. For certification, all faculty members are required to complete FDP1 and FDP2 prior to teaching the ILE Common Core Course.

The CGSC Experiential Learning Model: Learning Modes and Learning Styles

During FDP1, the entry level instructor certification course, all faculty members are introduced to the "CGSC Experiential Learning Model," or ELM. The ELM serves as the methodology for both lesson plan design at the Command and General Staff College as well as the dominant teaching methodology for delivering curriculum.

The ELM model is based upon a theory of learning developed by Dr. David A. Kolb, where he describes four different modes of learning: *concrete experience, reflective observation, abstract conceptualization, and active experimentation* (Kolb, 1983). Each person utilizes all four of these learning modes, but has a preferred or dominant learning style made up of two of these modes based on how new learning is acquired and processed (Risner & Ward, 2004).

Acquiring knowledge (see figure 1) is based upon two different learning modes: *concrete experience* (CE) and *abstract conceptualization* (AC).

Concrete Experience (CE) is the acquisition of knowledge characterized by personal involvement, feeling rather than thinking, and learning from specific experiences. Knowledge is acquired primarily in the affective domain.

Abstract Conceptualization (AC) is the acquisition of knowledge characterized by the use of logic, ideas, and concepts, the "Scientific approach," quantitative analysis, and thinking rather than feeling. Knowledge is acquired primarily in the cognitive domain.

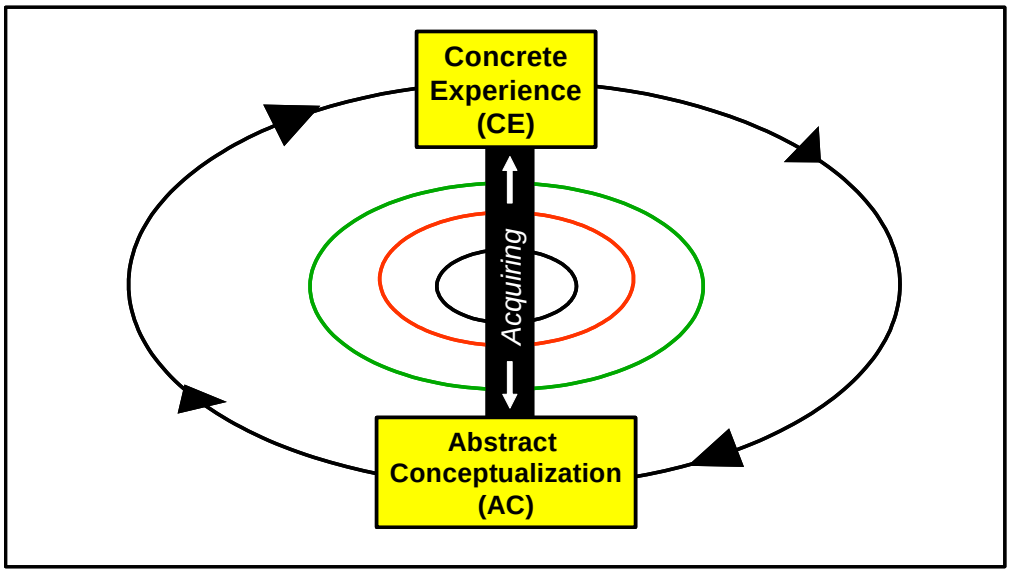

Figure 1. "Acquiring" Knowledge Modes

Processing knowledge (see Figure 2) is also based upon two different learning modes: *reflective observation* (RO) and *active experimentation* (AE).

Reflective Observation (RO) is the processing of knowledge characterized by the use of observation rather than action, considering different points of view, looking for meaning, and seeing implications and connections. As the name implies, processing knowledge by reflective observation relies on reflection and observation to process information.

Active Experimentation (AE) is the processing of knowledge characterized by actively trying to influence events through action, practical application of knowledge, accomplishing certain tasks, and taking risks. As the name implies, processing knowledge by active experimentation uses a "hands on" approach.

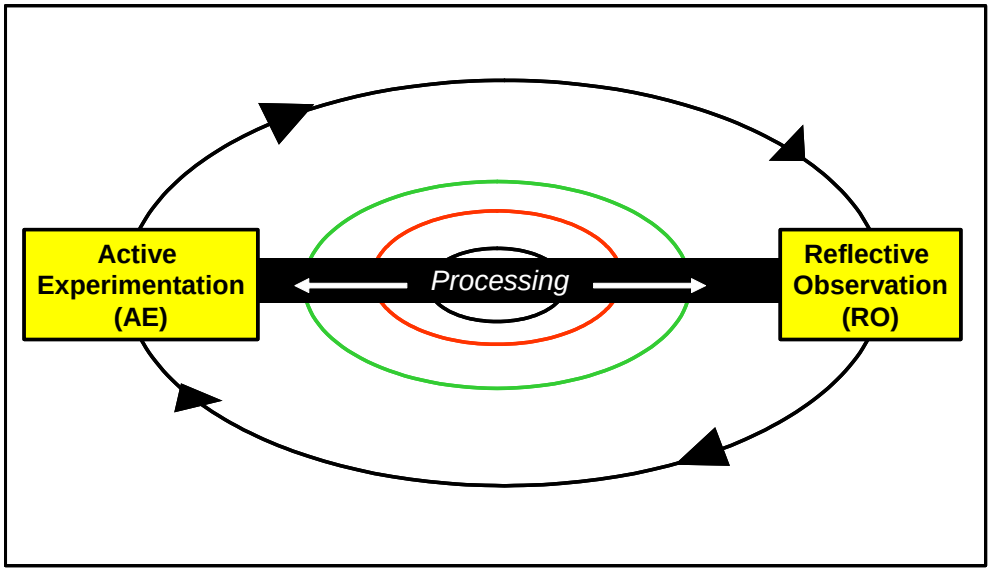

Figure 2. "Processing" Knowledge Modes

The combination of the two preferred learning modes (how knowledge is acquired and how knowledge is processed) determine learning styles (see figure 3).

Divergers, learners who acquire knowledge by *concrete experience* and process knowledge by *reflective observation* (CE + RO), have the typical characteristics or behaviors of seeing relationships, looking for alternatives, discovering meaning and value, and are oriented on feelings. Divergers like to focus on "discovering" when learning.

Assimilators, learners who acquire knowledge by *abstract conceptualization* and process knowledge by *reflective observation* (AC + RO), have the typical characteristics or behaviors of creating theoretical models, reasoning inductively, being concerned with ideas rather than with people, and thinking quietly. Assimilators like to focus on "planning" when learning.

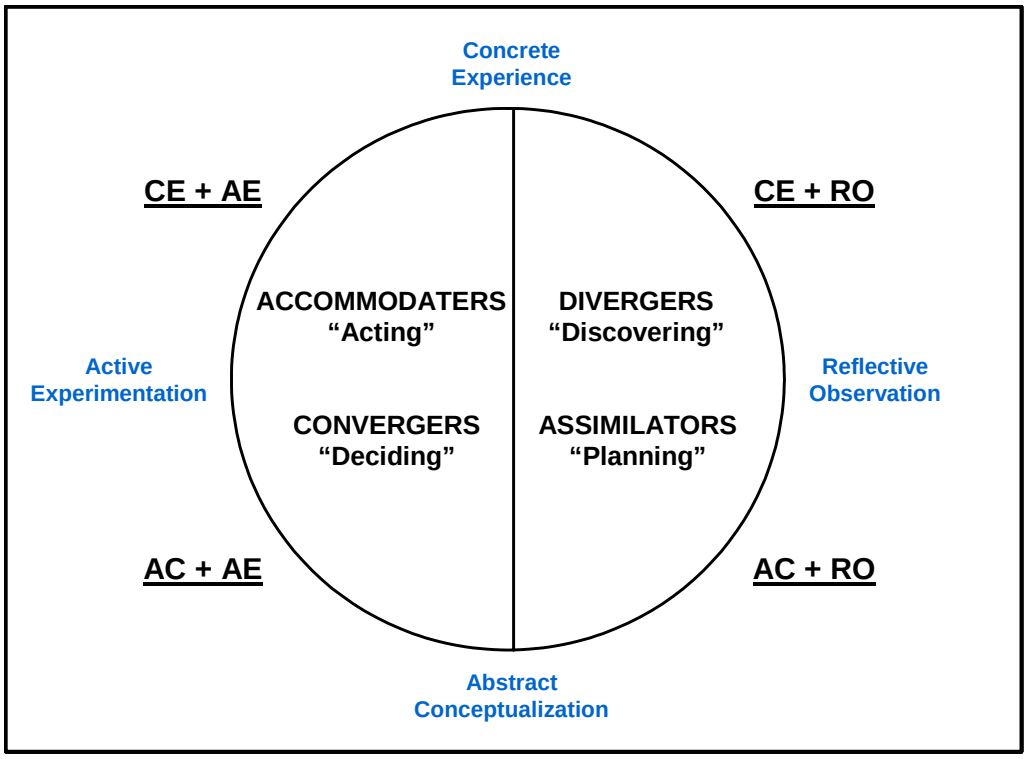

Figure 3. Learning Styles

Convergers, learners who acquire knowledge by *abstract conceptualization* and process knowledge by *active experimentation* (AC + AE), have the typical characteristics or behaviors of developing practical application, reasoning deductively, preferring technical tasks (rather than interpersonal tasks), and a preference for solving specific problems. Convergers like to focus on "deciding" when learning.

Accommodators, learners who acquire knowledge by *concrete experience* and process knowledge by *active experimentation* (CE + AE), have the typical characteristics or behaviors of desiring to focus on doing things, being adaptable to change, impatience, and having a tendency to rely on others. Accommodators like to focus on "acting" when learning.

The CGSC Experiential Learning Model: Curriculum Design and Delivery

A typical classroom at the Command and General Staff College may have all four learning styles represented – although the majority of students and faculty will have a preference for the cognitive aspects of *abstract conceptualization* and will be convergers and assimilators (planners and decision makers). The curriculum design and principal teaching methodology is designed to "hit" all four of the learning styles using a "spiral of learning" approach where curriculum content is presented through an affective experience, reflection, thinking, and then acting (see figure 4) (Kolb & Kolb, 2005). In this manner, the learning styles for all of the students are emphasized at some point of each class – making all students (and faculty)

comfortable with the methodology of teaching… and also uncomfortable at some stage of learning. The CGSC Experiential Learning Model deliberately ensures that all faculty and students experience learning from all four learning styles to complete the "spiral of learning."

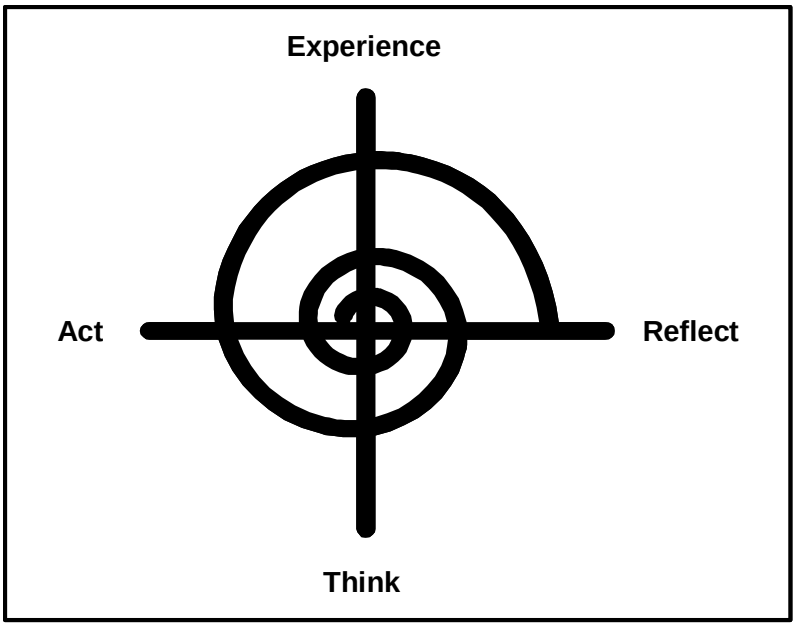

Figure 4. The "Spiral of Learning"

The "spiral of learning" approach reinforces the concept that learning is an iterative process that includes the processes of experiencing, reflecting, thinking, and acting upon new knowledge. Even though learners have a preferred or dominant learning style – and hence a preference for one of the four processes – all four processes are necessary to accomplish "learning that lasts." In order to accomplish the "spiral of learning," the CGSC Experiential Learning Model, as a hybrid application of Kolb's theory of learning, is the framework used for lesson plan design and the principal approach to teaching. Classroom instruction does not focus on one particular process (experiencing, reflecting, thinking, or acting); integrating all of the four processes in lesson design and lesson delivery is the goal of the CGSC Experiential Learning Model.

The CGSC Experiential Learning Model is not a specific methodology for instruction; it is a framework that serves as an "umbrella concept" for lesson plan design and lesson presentation. As an umbrella concept, the model provides a framework for different delivery techniques for teaching: seminar instruction, instructor-centric traditional lecture, Socratic questioning, or case studies, to name a few. The delivery technique chosen is just one aspect of the CGSDC Experiential Learning Model, which is focused on providing the opportunity of creativity in each step of the model. Each of these (and other) delivery techniques follow the basic framework of the learning style theory of experiencing, reflecting, thinking, and acting. The CGSC Experiential Learning Model provides insight into the learning process for creating conditions where learning lasts.

The CGSC Experiential Learning Model (see figure 5) follows five different steps: *concrete experience*, *publish and process*, *generalize new information*, *develop*, and *application*. Each of these steps contributes to accomplishing a learning objective, causing learners to stretch their learning style preference and positively impact the quality of the learning experience.

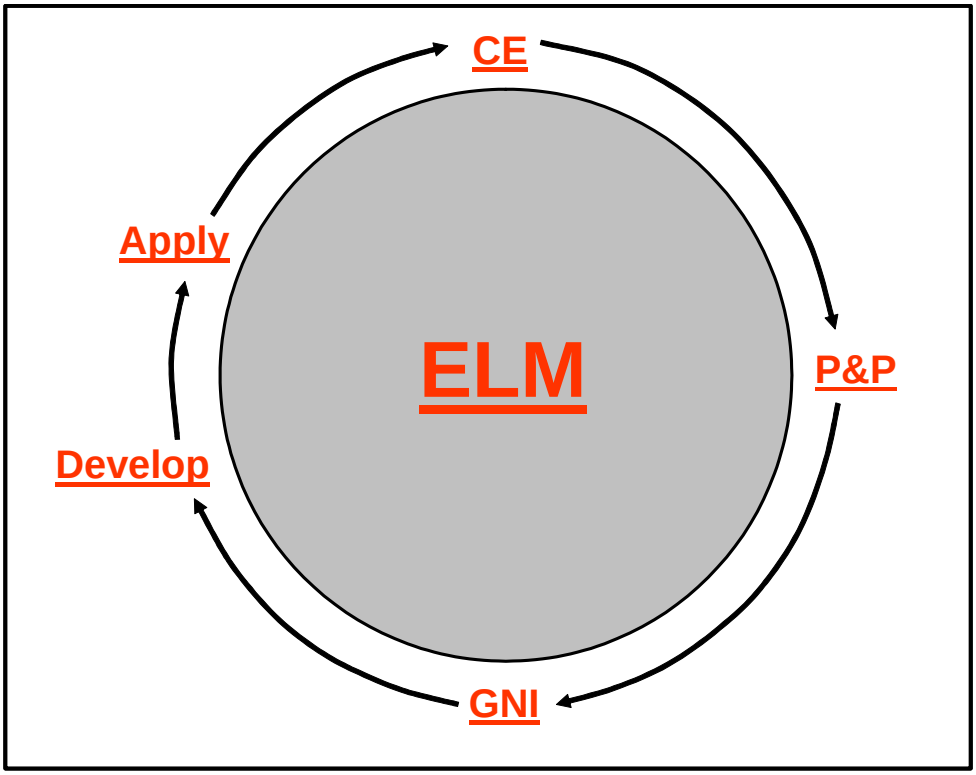

Figure 5. The CGSC Experiential Learning Model

The starting point for the ELM is the learning objective, which drives the ELM process. The first step in the CGSC Experiential Learning Model is the *concrete experience* (CE). The CE should be an interactive, experience shared by the students which should relate directly to the learning objective – although this may not be apparent at first. The concrete experience is designed to be in the affective domain and should "get the juices flowing" and garner interest in the subject. CEs should be as sensory rich as possible and relate to the learning objective. An example of an effective (and affective) concrete experience is an attention-getting illustration or short clip from an action movie that gets listeners engaged and involved.

The second step in the CGSC Experiential Learning Model is *publish and process* (P&P). Publish and process consists of two distinct sub-steps – *publish* (what you would find on the front page of a reputable newspaper) and *process* (what you might find on the editorial page). The *publish* step relies on observation by asking the learners to state what happened in the concrete experience – just the facts. Publishing may include determining the sequence of activities as well as the actors in the concrete experience. After the facts of the concrete experience have been established, students are then asked to *process* the concrete experience by reflecting on what happened and the implications of the concrete experience. The *publish and*

process step of the CGSC Experiential Learning Model is characterized as a student centric step that asks the questions:

- What happened?
- Who were the actors?
- What did it mean? What did you learn?
- What is your reaction to what happened?

The third step in the CGSC Experiential Learning Model is *generalize new information* (GNI). Normally, in the transition between *publish and process* and *generalize new information*, the instructor explicitly states the learning objective for the class. Generalize new information is normally instructor centric, with the instructor facilitating the discussion of new material to be mastered in the class. Although this step can consist of a traditional instructor-centric lecture, the most effective GNI is also interactive using either a seminar approach or the Socratic questioning technique.

The fourth step in the CGSC Experiential Learning Model is the *develop* step. In this student centric step, students are challenged to go from abstract theory to application of the theory. This step is characterized by a simple question to the students of how they will use the new information from the *generalize new information* step. The most effective approach for the develop step is a specific open ended question asked in the second person: "How will you use this information in the future?" or "What value does this have for you?" It is important to ensure that students are allowed appropriate time to answer this question so they can see the value of what they have learned and the relevance of the material covered. You can be sure that if the students don't see utility in the new material just presented, they won't remember it later on… so the instructor may have to provide some examples of how the material is relevant and get some level of acknowledgement from the students. The *develop* step, if properly conducted, can take the class beyond the prescribed learning objective to where the students personalize the information.

The fifth and final step in the CGSC Experiential Learning Model is the *apply* step, the proverbial "test." This step is where the material is actually put to the test – either through a practical exercise, some type of an assessment (such as a written product), or through real-life application of the learning objective. The *apply* step should provide an assessment as to whether the learning objective was met. In the *apply* step, feedback to the student is essential.

The CGSC Experiential Learning Model: Theory and Practice

Figure 6 illustrates the relationship between the theory of learning and the CGSC Experiential Learning Model as the framework for lesson plan design and delivery. In the CGSC Experiential Learning Model, the *concrete experience* and the *generalize new information* steps – representing the acquisition of knowledge – are designed and set up by the instructors. The *publish and process*, *develop*, and *apply* steps – representing the processing of knowledge – are student centric steps. To use a food analogy, instructors "feed" the students in the affective domain by presenting the *concrete experience* step; instructors "feed" the students in the

cognitive domain by presenting the *generalize new information* step. Students affectively "taste" in the *publish and process* step, cognitively "eat" in the *develop* step, and cognitively "digest" in the *apply* step.

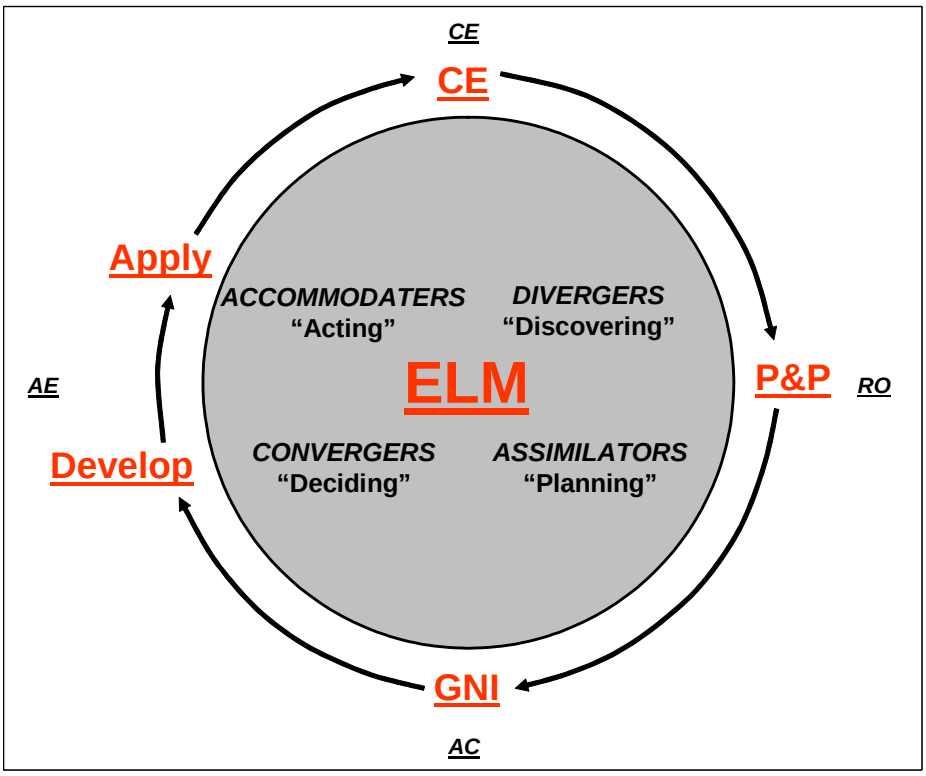

Figure 6. The CGSC Experiential Learning Model and *Learning Styles*

The CGSC Experiential Learning Model also enables learners from each of the four learning styles to have a "comfort zone or preference" during each class (USACGSC, 2005):

- Divergers are comfortable seeing the big picture and asking why things are; divergers normally enjoy hearing the story at the beginning of a speech and reflecting on the hidden meanings. Therefore, divergers are normally comfortable with the *concrete experience* and the *publish and process* steps.

- Assimilators are comfortable with analysis and reflection and normally enjoy inductive reasoning. Therefore, assimilators are normally comfortable with the *publish and process* step and the *generalize new information* step.

- Convergers want to get down to business; they like details and want to get right to problem solving. "Tell me what I need to know and then I'll do it!" Convergers are normally comfortable with the *generalize new information* step and they have to see the relevance of the material in the *develop* step.

- Accommodators learn by doing and experiencing. Accommodators can frequently be in a rush to implement plans and are risk takers. Therefore, accommodators are normally most comfortable with the *apply* step.

The CGSC Experiential Learning Model also models the underlying premise of the educational philosophy at CGSC: teaching students how to think, rather than what to think. The CGSC Experiential Learning Model is designed to treat subject matter content from a process framework in a problem solving model. This problem solving model is designed to enable students to identify a problem, develop courses of action or solutions to a problem, test the courses of action or solutions to the problem, and then implement or apply that solution. This focus on "how to think" rather than "what to think" has been emphasized at Fort Leavenworth since the 1890s (Gabel, 1997). As a professional school, this emphasis on problem-solving is critical for practitioners of the military profession (see figure 7).

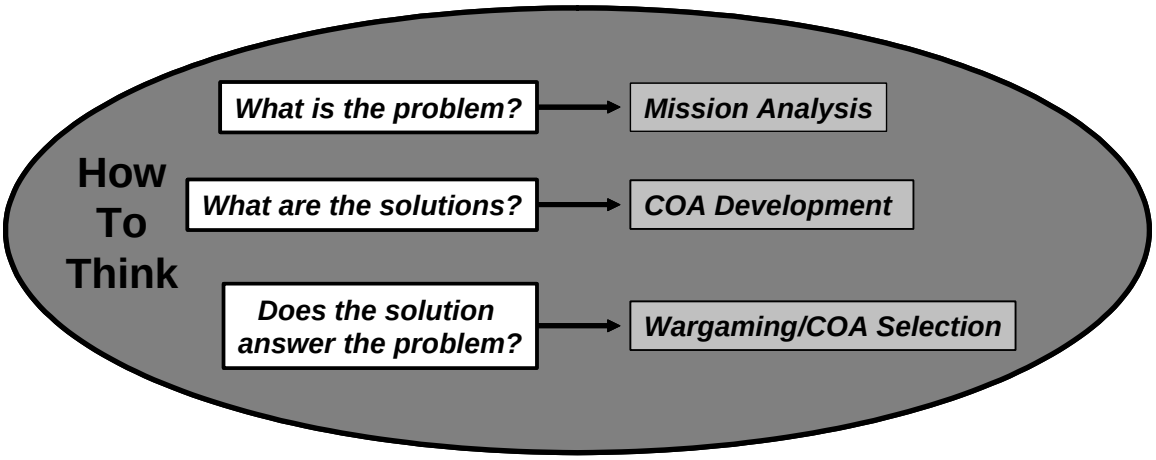

Figure 7. The Leavenworth "How to Think" Model

The standard methodology for military professionals to solve problems is a process known as the Military Decision Making Process, or MDMP (DA, 2005). MDMP is a rather elaborate mental model used for problem-solving, but in its basic form is consists of:

- Receipt of the Mission
- Identifying the problem (Mission Analysis)
- Developing possible solutions to the problem (Course of Action Development)
- Selecting a solution to the problem (Wargaming and Course of Action Selection)
- Implementing the solution (Rehearsal and Execution)

The basic methodology for MDMP also corresponds to the CGSC Experiential Learning Model. Receipt of the Mission is analogous to the *concrete experience*; Mission Analysis is analogous to *publish and process*; Course of Action Development is analogous to *generalize new information*; Wargaming and Course of Action Selection is analogous to *develop*; and the Rehearsal and Execution is analogous to the *apply* step in the CGSC Experiential Learning Model. Although the ELM is not a problem solving model, the steps in the ELM reinforce the

basic structure of the Leavenworth philosophy of "how to think" rather than "what to think." Figure 8 provides an illustration of the relationship between the ELM and MDMP.

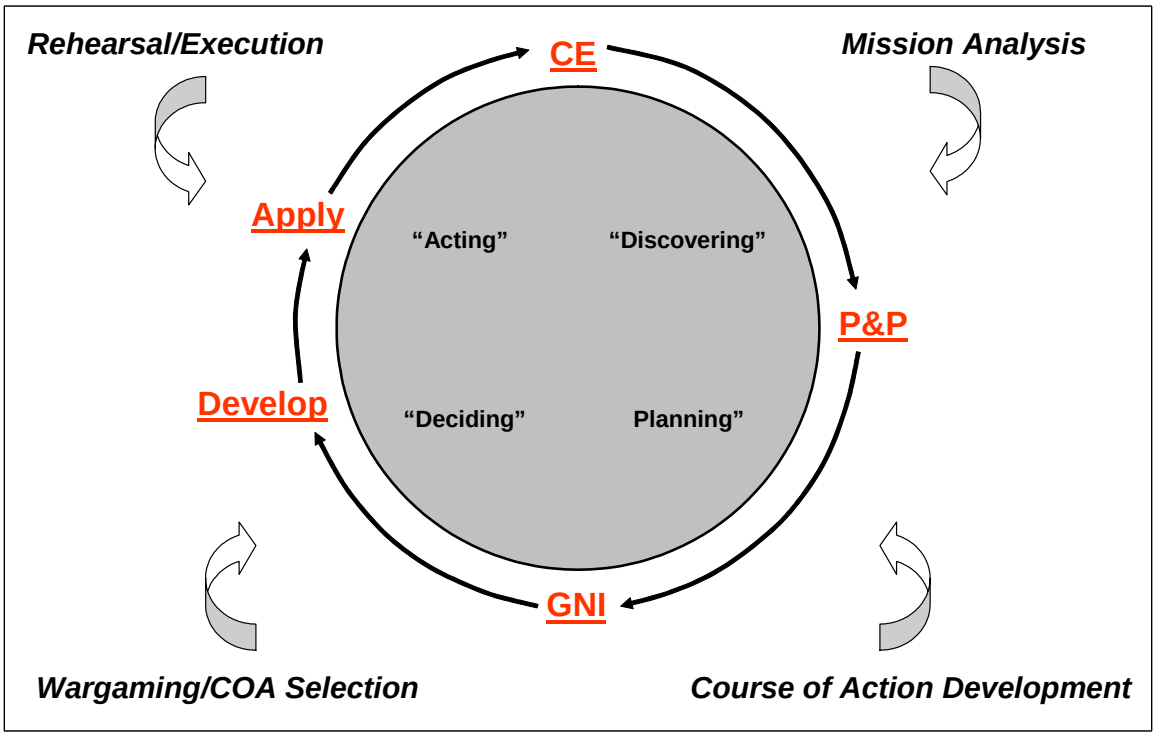

Figure 8. The CGSC Experiential Learning Model and *MDMP*

In this manner, the framework for lesson plan design and presentation, the CGSC Experiential Learning Model, reinforces the underlying thread of the CGSC curriculum – how to think and how to solve problems. MDMP is but one problem solving mental model that follows the same patter of clearly identifying a problem, developing solutions to a problem, selecting a solution, and them implementing that solution.

Throughout the CGSC curriculum, there are a number of mental models that reinforce problem solving. One of the better known military examples is the concept of the "OODA loop," which follows a progression of observe, orient, decide, and act. The military concept of conducting After Action Reviews (normally given after an exercise or operation) also follows a similar model of identifying what happened, discussion of key events, identifying how the exercise or operation could have been performed better, and then integrating lessons learned into future exercises and operations (DA, 1993).

The Use of Case Studies in the CGSC Experiential Learning Model

The case study pilot at Fort Belvoir, VA was designed based on the framework of the CGSC Experiential Learning Model. Three different case studies were designed to serve as integrating lessons for three different major blocks of instruction: the Foundations block (C100), the Strategic Studies block (C200), and the Tactical Studies block (C400). Each of these blocks

consists of a variety of classes taught over a 2-3 week period; the number of contact hours for each of the three blocks ranges from 46 hours to 68 hours of instruction. The case studies were designed to integrate all of the terminal learning objectives of the respective blocks.

There were a variety of objectives in using the case studies. The first objective was to reinforce the learning objectives for each of the major blocks of instruction. The second objective was to develop an awareness of a variety of current issues by studying the content of the case studies. The third objective was to reinforce the problem-solving model that is the underlying thread of the CGSC curriculum (how to think). The fourth and final objective of the case study pilot was to develop competence in the faculty for presenting cases as an alternative method of instructional delivery.

The case study delivery technique chosen built upon the foundation of the learning objectives from the preceding major blocks of instruction. Four specific questions were addressed during the conduct of each case study:

- What are the facts of the case study (what happened)?
- Who were the players involved in the case studies (who are the actors)?
- What are the implications of the case study for the players involved (what did it mean)?
- What are the lessons learned from the case study (how does this impact you)?

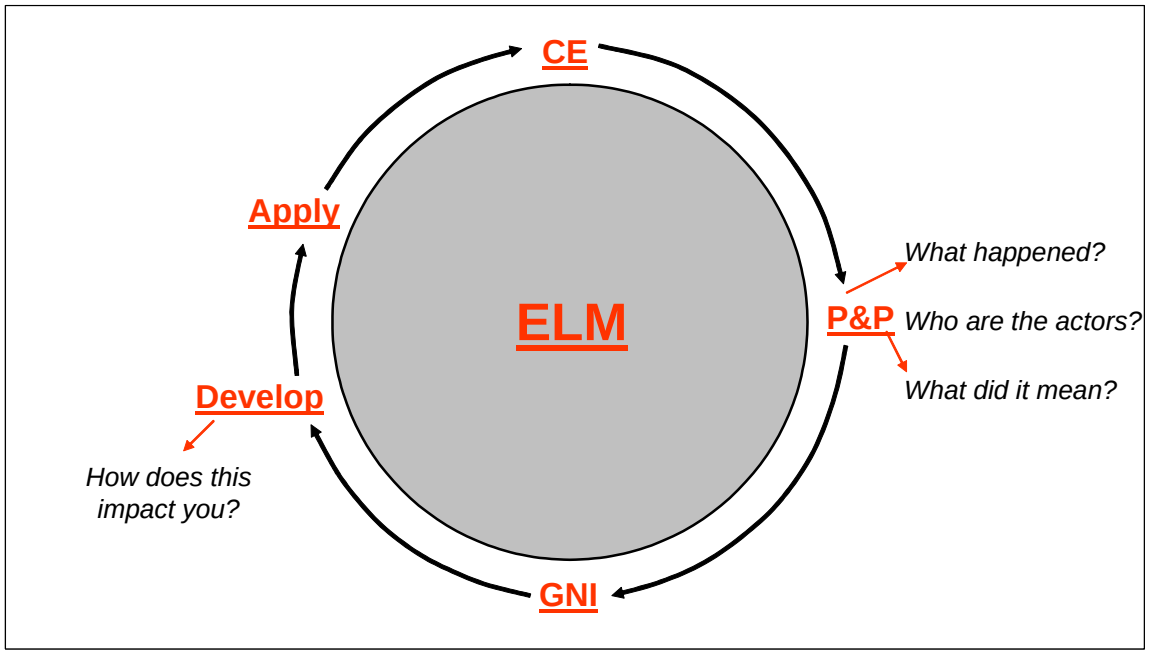

Figure 9. The CGSC Experiential Learning Model and *Case Study Questions*

These four questions were developed from "processing knowledge" steps of the CGSC Experiential Learning Model – the *publish and process* step and the *develop* step (see figure 9). Instructors facilitated the case studies, keeping the discussions on track. Each student was expected to be prepared to make significant contributions to the discussions in the class based

upon a careful reading of the case study materials. Instructors started the case study off with a "cold call" question to one of the students, asking the student to provide a detailed summary of the facts of the case. After the facts of the case (and the specific sequence of activities in the case) were determined, another "cold call" was directed to another student to provide a summary of the players (and their role) involved in the case study.

After determining the facts of the case, the discussion shifted to the implications of the case study for the players involved in the case study (another "cold call"). The implications of the case study were evaluated in terms of the learning objectives from the block of instruction. For example, during the Foundations block the learning objectives related to five focus areas: threats, challenges, and opportunities of the contemporary operational environment; critical reasoning; media consideration; cultural considerations; and leadership. The case study for the C100 Foundations block was a detailed summary of the actions after the Abu Ghraib investigation – and the questions focused the content (Abu Ghraib) in the Foundations block learning objectives (cultural considerations, media considerations, etc.).

As part of the preparation for the case studies, students were also given a number of questions to prepare for the case study discussion; these questions related the content of the case study to the learning objectives from the block. Examples of the questions that were provided include:

a. Who should be held accountable for the guards' actions?
b. Were they instructed to abide by the Geneva Conventions?
c. Why were they taking pictures?
d. What indication did they have from superiors that this was appropriate behavior?
e. What implications would the revelations have for American support for the war in Iraq, for the presidential election campaign, and perhaps more importantly, for America's image on a global scale?
f. What's the real problem for Secretary Rumsfeld during the initial revelations of the problems at Abu Ghraib?
g. How was the media used to "get out the right message?" How well was this done?
h. What are the cultural considerations of the actions of the US Government during this time?
i. What are the implications for the leadership climate in Iraq from Abu Ghraib?

After discussing the implications, the discussion shifted to the lessons learned from the case studies and how these lessons can be applied in the future (the *develop* step). The focus for this part of the case study was on how students could use these lessons as military professionals in their next assignments over the next ten years.

A similar process was followed for the other two case studies that were piloted at Fort Belvoir. For the Strategic Studies (C200) block, the case study considered the strategic actions for the intervention in Haiti in 1994 (Operation Uphold Democracy). For the Tactical Studies (C400) block, the case study considered US/UK Coalition Combat Operations in Operation Iraqi Freedom.

The Mechanics of Case Studies: Preparation

Preparing the pilot case studies required a great deal of preparation for the faculty and students alike. One of the most difficult steps was to develop case studies with sufficient relevance and richness to reinforce the learning objectives from the respective blocks of instruction. Each of the case studies needed to have sufficient complexity to sustain a detailed analysis of the facts of the case and the sequence of activities – while not overwhelming the students and faculty. For this reason, the case studies that were selected consisted of 15-20 pages of text. The case studies were sufficiently mature enough to provide the necessary detail and content so that additional research was not necessary for the students. In fact, students were discouraged from "muddying the waters" by bringing in additional (and possibly contradicting) information into the discussion – the facts of the case in the case study were assumed to be accurate so that the discussion didn't get bogged down in additional details.

Faculty members facilitated the case study by conducting a short introduction and then going directly into the "cold call" questions. As a rule, the faculty member facilitating the case study had a target of speaking no more than 15% of the time – the case studies were designed to be student-centric, with the faculty member taking on the primary role of keeping the discussions on track. The faculty members were, however, expected to have complete mastery of the facts of the case. If a student provided an answer that wasn't right (such as providing the wrong sequence of events), the faculty member was expected to redirect the question to another student (i.e., "Was that what happened next?").

Faculty members also used the "white boards" in the classroom to capture some of the discussion in the classroom. This "running summary" of the comments in the classroom provided a focus for the remainder of the students in the classroom without the faculty member having to say a word ("I wonder why he wrote that down?"). This "running summary" also provided an excellent means to provide a summary at the end of the case study.

The questioning of the students required significant facilitation skills – all of the questions were intended to be open ended questions, and the responses were expected to be of sufficient detail to answer the questions. The first "cold call" helped to set the stage; when the first student was asked to outline the facts of the case, the faculty member would say something along the lines of "give us a ten minute summary of the facts of the case." Ten minutes is a long time for many of the students to give a factual summary, but the expectation was given early that a simple two to three sentence response wasn't adequate.

Although the primary method of questioning was a "cold call" with the expectation of a detailed response, at the end of each "cold call" the rest of the students in the class were allowed to "fill in the details" or provide more insight into the question at hand. This provided all of the students the opportunity to give their input and also encouraged each student to be engaged.

The case studies were conducted over a two hour period. For each of the three case studies, the discussion could easily have gone longer – particularly since all of the students were allowed to make additional comments after the "cold call" responses. For this reason, time management was essential; the faculty member facilitating the instruction needed to be well

aware of the time so that all of the objective could be met – and to allow sufficient time for the *develop* step.

The Belvoir Case Study Pilot: After Action Review

The methodology of the case studies was similar for each of the three pilot case studies that were conducted at Fort Belvoir, VA. Faculty members used four general types of questions, in sequence, to reinforce the problem-solving approach used during all of the ILE Common Core Course instruction:

- What are the facts of the case study (what happened)?
- Who were the players involved in the case studies (who are the actors)?
- What are the implications of the case study for the players involved (what did it mean)?
- What are the lessons learned from the case study (how will you use the lessons)?

Facilitating case studies in this sequence created a deliberate methodology to cause the students to follow the basic problem solving model of identifying the problem, looking at the solutions to the problem, and then determining how those solutions can be used in the future.

Rather than using the studies solely as a decision-making exercise, forcing the students to clearly identify the facts of the case and the players involved helped to mitigate the general tendency of military professionals (convergers) to jump to conclusions and action. This deliberate activity of the "cycle of learning" by the questioning techniques for the case studies ensured that all of the students experienced, reflected, thought, and then acted on the content material.

The students and faculty conducted after actions reviews at the conclusion of each pilot case study. The model for the after action reviews followed the same problem-solving model as the case studies:

- What happened during the case study (just the facts)?
- What were the roles played by the faculty and students?
- What went well? What didn't go well? How could it have gone better?
- How can we use the lessons from the case studies for future instruction?

What happened during the case study (just the facts)? The facts of the case studies were that pilot case studies were conducted in a staff group configuration with 13-14 students in each classroom. Students were provided the reading material for the case studies (20-25 pages of text) approximately two weeks prior to the conduct of the class. The case studies were facilitated by a primary instructor from the preceding major block of instruction. Although only one faculty member facilitated the discussion, at least two other instructors were in the classroom during the case study. The discussion went from a series of "cold calls" on individual students to provide detailed answers to the primary questions, followed in turn by allowing the remainder of the students to provide commentary or additional details. The case studies took two hours without a break. During the discussion periods, the instructors were

able to limit their speaking to 10-15% of the time, with the remainder of the time in a lively discussion of the different steps of the case study.

What were the roles played by the faculty and students? The roles played by the faculty and students were as designed. The primary instructor, as the facilitator, posed the questions and called on specific questions during the "cold calls." The primary instructor also called on students after each of the "cold calls" to provide the commentary or additional details. While students were providing their responses (either "cold calls" or follow up comments), the instructor used the "white boards" in the classroom to write down some of the answers. The additional instructors in the classroom primarily served as observers and made very few, if any, comments during the case study.

What went well? The students, as well as the faculty, were aware of the implications of the case study for integration of the methodology into future curriculum materials for the ILE Common Core Course. Both students and faculty were well-prepared for the case studies and had thoroughly studied the materials. As a result, the responses to each of the questions were comprehensive and thoughtful. The topics discussed (in particular the Abu Ghraib Case Study) were relevant and timely; the discussions were interactive and lively. The discussions also served to reinforce the learning objectives in the preceding blocks with the focused questions.

What didn't go well? Due to the lively discussions, time management was a key issue. Faculty members needed to closely watch the time allotted to each of the topic areas to ensure that all areas were adequately covered during the case study. A detailed rehearsal of the case study would have been of use for better time management.

How could it have gone better? The case studies used for strategic level operations (Abu Ghraib and Haiti) were easier to conduct than the tactical case study (US/UK Coalition Combat Operations in Operation Iraqi Freedom). Gaining access to a solid tactical level case study was particularly problematic because of the limited information available and classification issues; a better context-rich case study at the tactical level would have made the third case study much better.

How can we use the lessons from the case studies for future instruction? The case study methodology could be used in the future as an alternative instructional methodology. Because of the high energy required for both faculty and students in the case study, this particular methodology would be most appropriate to use after each major block of instruction – no more than one time every two weeks.

Case Studies: Summary

The case study methodology used at Fort Belvoir utilized an instructional approach that fits well under the CGSC Experiential Learning Method "umbrella." The instructional approach was designed to use four general types of questions – in sequence – to reinforce the problem-solving approach used during all of the ILE Common Core Course instruction:

- What are the facts of the case study (what happened)?
- Who were the players involved in the case studies (who are the actors)?
- What are the implications of the case study for the players involved (what did it mean)?
- What are the lessons learned from the case study (how will you use the lessons)?

Facilitating case studies in this sequence created a deliberate methodology to cause the students to follow the basic problem solving model of identifying the problem, looking at the solutions to the problems, and then determining how those solutions can be used in the future – a process similar to the Leavenworth Philosophy of "how to think.".

Rather than using the studies solely as a decision-making exercise, forcing the students to clearly identify the facts of the case and the players involved helped to mitigate the general tendency of military professionals (convergers) to jump to conclusions and action. This deliberate activity of the "cycle of learning" by the questioning techniques for the case studies ensured that all of the students experienced, reflected, thought, and then acted on the content material.

The "lessons learned" from the case study pilot were generally positive. At the beginning of the case study pilot, there were four objectives and all four were met. The first objective, reinforcing the learning objectives for the preceding block of instruction was met; the learning objectives provide an appropriate focus for the preparation of conducting the case studies. After the discussion of the case studies students gained greater insight and awareness of learning objectives and were able to apply the learning objectives to a particular situation. The second objective, developing an awareness of a variety of current issues by studying the content of the case studies, was met by the detailed preparation and discussion of the content of each of the cases. The third objective, reinforcing the problem-solving model that is the underlying thread of the CGSC curriculum (how to think), was met by creating the conditions where students experienced, reflected, thought, and then acted on the case study. The fourth and final objective of the case study pilot, develop competence in the faculty for presenting cases as an alternative method of instruction, was met by the faculty involvement and after action reviews of the case study classes – and a greater awareness of the theory behind the application of conducting case studies. In this way, faculty members were able to ensure that every question and every action during the case studies were deliberate and purposeful.

There are, of course, other ways to conduct case studies effectively. The case study pilot at Fort Belvoir, VA was not intended to represent the only way that we can use case studies in ILE, but rather to present a way that case studies could be quickly included in the curriculum. The faculty and students who conducted the pilot found this methodology enhanced learning and was an effective tool for curriculum design and delivery.

References

Department of the Army (DA) (1993). *A leader's guide to after action reviews*. Washington, DC: US Government Printing Office.

Department of the Army (DA) (2005). *Army planning and orders production*, Field Manual 5-0. Washington, DC: US Government Printing Office.

Gabel, C. R. (1997). The Leavenworth Staff College: An historical overview. *Military Review 77(5).*

Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Upper Saddle Back River, NJ: Prentice Hall.

Kolb, D. A. & Kolb, A. (2005). *Opening Keynote Address*, briefing slides, Council for Adult and Experiential Learning, November 10-12, Chicago, IL.

Risner, R. & Ward, T. E. (2004). *Concrete experiences and practical exercises: Interventions to create a context for a synergistic learning environment.* Fort Leavenworth, KS: United States Army Command and General Staff College Faculty and Staff Development Division.

U.S. Army Command and General Staff College (USACGSC) (2005). *The CGSC Experiential Learning Model,* JA-2. Fort Leavenworth, KS: United States Army Command and General Staff College Faculty and Staff Development Division.

The views expressed in this article are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.